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R E M A R K S

Claims 1-14 were rejected under 35 USC 101. A short interview with the Examiner on October 11, 2006 revealed that the rejection is based on the assertion that the claim is "abstract," and not on an assertion that the claim is "mathematical." Applicants thank the Examiner for speaking with applicants' representative, but substantively, applicants respectfully traverse.

Claim 1 specifies a real-time visualization system. It is respectfully submitted that a "system" is statutory, unless it encompasses any and every machine that performs the underlying process, in which case whether the claim is statutory depends on the underlying process.

In the case at hand, claim 1 comprises a plurality of processing tools. Clearly a visualization system can have only one processing tool – that of displaying whatever is presented. Since claim 1 defines a plurality of processing tools, it follows that claim 1 does not encompass any and every machine that performs the underlying process.

Further, the processing tools, which create data results, have data streamed to and through them. Clearly, one can have a system where none of the processing tools are adapted to have data streaming to and through them. Hence, claim 1 does not encompass any and every machine that performs the underlying process.

Claim 1 also specifies a means for accessing data files that contain self-describing information. Clearly, one can have a system that cannot handle such files. Therefore again, claim 1 does not encompass any and every machine that performs the underlying process.

Claim 1 additionally specifies a means that enables streaming the data through one or more processing tools to create data results for updating one or more displayed objects. Clearly, one can have a visualization system without streaming, or with streaming but without creating data for updating the display of an object. Hence, yet again claim 1 does not encompass any and every machine that performs the underlying process.

Based on the above, it is respectfully submitted that claim 1 is statutory.

Even if it were erroneously concluded that claim 1 encompasses any and every machine for performing the underlying process, that being the display of objects via the

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visualization interface, it is noted that the system does NOT manipulate abstract ideas. Rather, armed with a plurality of processing tools it processes data contained in files, which data represents objects, where the files have a common characteristic, that being that they all have a preselected self-describing format, and it performs this processing by streaming the data to and through the processing tool or tools. The actions are all concrete and very specific; not abstract.

Further, it is also noted that there is no mathematical problem that is solved anywhere in claim 1 (and the Examiner so admitted in the above-mentioned telephone interview).

Further still, it is noted that the process is clearly limited to a practical application, that being displaying objects.

In short, applicants see no justification for holding claim 1 non-statutory.

Independent claim 8 is a method claim. It also does not solve a mathematical problem, does not manipulate abstract ideas, and is limited to a practical application, just as independent claim 1 is. Therefore, it is respectfully submitted that claim 8 is also statutory.

The remaining claims depend on either independent claim 1 or independent claim 8 and are, therefore, also believed to be statutory.

Claims 1-6 and 8-13 were rejected under 35 USC 103 as being unpatentable over Brown, US Patent 6,473,080 in view of Lakritz, US Patent 6,526,426. Applicants respectfully traverse.

Claim 1 specifies a means that enables streaming of data of files through one or more processing tools. The Examiner admits that the Brown reference does not teach streaming but asserts that Lakritz does. Applicants respectfully disagree.

The Lakritz reference describes an arrangement where an Internet website contains information in one language – where the reference groups all “information” under the term “documents” – and the intent is for the web site to translate all of the documents from a master language of the website to other languages, so that visitors to the website can obtain the documents in their desired language. The Lakritz reference includes a Manager’s Console that detects when a document in the master language has been updated and it notifies the website manager (in common parlance, called

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“webmaster”) of that fact. The webmaster can choose to initiate the translation process. When that choice is made, the documents that require translation are staged to a “Workflow Pipeline” and then dynamically routed and sequenced to the individual “Translation Resources,” where the actual translation is performed. See col. 8, lines 4-17.

In support of the assertion that Lakritz teaches streaming the Examiner points to FIG. 6 and the text at col. 7, lines 24-47. FIG. 6 merely shows an element named “Workflow Pipeline,” and the cited text teaches that there exists a Workflow Pipeline 602. It does not teach what the Workflow Pipeline element does, or how it does it. The cited passage does teach that

Translation queues 604 hold the incoming translated documents and outgoing documents to be translated

and lines 39-40 effectively promise a summary of the duties of the Workflow Pipeline. This promise is fulfilled in the aforementioned col. 8, lines 4-17 passage. No other mention of Workflow Pipeline 602 is found in the reference.

A number of facts bear highlighting. First, the translation of documents follows sometime after the documents have been updated. Second, the translation of documents may or may not take place, based on a decision made by the website manager. This means that translations are NOT carried out in response to a request for documents. Third, documents to be translated are held, i.e., stored, prior to the translation. Fourth, since documents are stored both prior to and following the translation, there is absolutely no need streaming data to and through processing tools.

It is understandable that the Examiner might surmise that the Workflow Pipeline corresponds to the means that enables steaming because the name of the element includes the word “Pipeline.” However, there is no teaching whatsoever that this elements enables streaming and, as indicated above, the fact that documents are stored prior to translation and following the translation provides no motivation for streaming of data. The actual implication of the name “Work Pipeline” for element 602 is that the workflow comprises a plurality of processes that are sequenced, seriatim. For example, process C follows process B, which follows process A. In other words, the “Workflow Pipeline” element specifies the sequence of the workflow. It has nothing to do with whether files are streamed through a processing tool, or not.

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Based on the above, it is respectfully submitted that claim 1 is not obvious in view of the combination of Brown and Lakritz and, for the same reasons, method claim 8 is also not obvious in view of the combination of Brown and Lakritz.

Additionally, and not in an effort to overcome the prior art, claims 1 and 8 are amended herein to tie-in the fact that the files that are processed had been converted to a self-describing format (and thus make the claims clearer from a 35 UCS 112 standpoint). As amended, claims 1 and 8 specify that the processing tools *employ* the information about the files, which information is available by virtue of the self-describing format of the files. This feature is totally absent from the Brown and Lakritz combination of references, making the claims even more non-obvious.

Also, claims 1 and 8 more clearly define what is meant by files having a self-describing format, and that too is not described in the cited references.

To conclude, it is respectfully submitted that independent claims 1 and 8 are not obvious in view of the Brown and Lakritz combination of references and, by extension, the claims that depend on claims 1 and 8 are also not obvious in view of the Brown and Lakritz combination of references.

Additionally, it is respectfully submitted that the dependent claims are independently not obvious in view of the cited references by virtue of their limitations.

Regarding claims 2 and 9, the Examiner asserts that col. 6, lines 37-40, 46, and col. 7 lines 30-35 teach the notion of *providing linked views* of the data results. Applicants respectfully disagree. The cited texts at col. 6 state:

The data architecture 14 is optimized in the sense that it provides a powerful structure which enables efficient and powerful large-scale data visualization and navigation.

and

The new fields may be visualized as columns.

Neither of the passages mentions *linked views* of data. The col. 7 passage states:

A depicted graphical depiction module 18 may be provided for graphically displaying selected information extracted from the data architecture 14 in a visually comprehensible manner. Additionally, a user interface module 47 may be provided to provide a graphical user interface for the user in dealing with the above-described modules.

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This passage also fails to even mention *linked views* of data. Therefore, it is respectfully submitted that claim 2 is neither taught nor suggested by the cited references.

Regarding claims 3 and 10, the Examiner cites FIGS. 1, 12 and 13, and col. 7, lines 43-47, and col. 16, lines 59-61. As for FIG. 1, it shows element 18, which is a "graphical depiction module," but FIG. 1 does not indicate what the depiction module depicts, or is capable of depicting. The passage at col. 7, lines 43-47 states:

In the world of computer graphics, there now exists a number of high level, efficient applications for displaying the structure of real or potentially real three-dimensional objects, such as machines, buildings, weather systems, protein structures, etc.

This teaches that applications exist for displaying three-dimensional objects, but it does not teach that, in fact, the Brown system has, or indeed has a need, for an application that creates images of three-dimensional objects; even if they are abstract objects. In fact, FIGS. 7 through 13 illustrate different outputs of the Brown system, but none of the FIGS. show a three-dimensional object. Moreover, claims 3 and 10 specify the capability to display dynamic three-dimensional detailed view, and there is nothing in the Brown reference regarding such views.

As for FIGS. 12 and 13, and the cited col. 16 passage, which pertains to these FIGS., it is noted that the display is a two-dimensional view of vectors. The passage states:

FIG. 12 and FIG. 13 show the location of the vectors for the variables in these matrices plotted within a two-dimensional space,

which supports the above observation. In other words 3 and 10 specify "statistical two-dimensional view" (emphasis supplied) and "pixel-oriented two-dimensional view" (emphasis supplied), but the vectors depicted in FIG. 12 and 13 are neither statistical nor pixel oriented.

Lastly, it is noted that claims 3 and 10 specify a capability of presenting all three: (a) a statistical two-dimensional view, (b) a pixel-oriented two-dimensional view, and (c) a dynamic three-dimensional detailed view. The Examiner has not even asserted that all three capabilities are taught in Brown.

Therefore, it is respectfully submitted that claims 3 and 10 are not obvious in view of Brown and Lakritz.

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Regarding claims 4 and 11, the Examiner cites the col. 6, lines 37-40 passage that is quoted above in connection with claims 2 and 9. It is respectfully submitted that this passage does not teach anything about having the ability to access data results "as the processing tools are working on the data."

Regarding claims 5 and 12, the Examiner cites FIG. 1 and col. 6, lines 8-11. The cited text states

In the manufacturing realm, on-line system monitoring data can be brought into the SCI system 10 through sensors and transducers 32 with the use of an analog to digital converter 24g.

At best, it can be said that this passage teaches the ability to obtain real-time data (from sensors and transducers). It does not teach or suggest "selection of a portion of the data results such that data corresponding to the portion selected", i.e., a portion of the data that results from some processing with the processing tools, "may be accessed and processed in real-time to create second data results that are displayed on the visualization interface." FIG. 2 certainly does not show that, either. Therefore, it is respectfully submitted that claims 5 and 12 are not obvious in view of the cited references.

Regarding claims 6 and 13, the Examiner cites FIG. 5, and col. 14, lines 46-49. FIG. 5 includes no labels, so it is not possible to determine what it shows, and the Examiner has not cited any text other than the above-mentioned col. 14 text. The cited passage states:

Additionally, the navigation engine 16 automatically conducts all necessary formatting of the graphical depiction for the selected peer group and categories and the nature of information within the category.

This teaches that engine 16 formats the graphical depiction. It does not teach or suggest "creation of new processing expressions" (whether or not they) "are compiled and dynamically linked to the processing tools." Therefore, it is respectfully submitted that claims 6 and 13 are not obvious in view of the cited references.

Claims 7 and 14 were rejected under 35 USC 103 in view of Brown, Lakritz, and admitted prior art. Applicants respectfully submit that claims 7 and 14 are patentable based on the fact that they depend on claims 1 and 8, respectively.


New claims 15-17 are included, and it is believed that they are also not obvious in view of the cited art, at least per force of their dependence on claim 1 or on claim 8.

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In light of the above remarks, applicants respectfully submit that all of the Examiner's rejections have been overcome. Reconsideration and allowance are respectfully solicited.

Respectfully,
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